

Japan's High-Cost Illness Insurance Program

A Study of its First Three Years, 1974-76

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JAPAN RECENTLY INSTITUTED a new, specialized health insurance program in recognition of a need to relieve its citizens of the high costs of health care resulting from serious illness (Health Insurance Law, Japan, 1922 (22), revised 1938, 1958, Amendment 89, September 26, 1973). Japan therefore became one of the few countries in the industrial or postindustrial phase of development that have moved to alleviate this problem. Thus, its experience is a valuable subject for study.

Communicable diseases are no longer the major causes of high mortality and morbidity rates. In Japan today, cerebrovascular disease, cancer, heart disease, and other long-term chronic illnesses are the major causes of disease, disability, and death. These long-term illnesses require complex diagnostic and treatment modalities, potent drugs, specialized facilities, and the use of highly trained medical personnel.

Since the introduction of new technologies for these illnesses, annual expenditures for medical care have increased rapidly.

In the past, health (sickness) insurance in Japan

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covered only a portion of the total charges for care. Recently, the majority of medical care costs have been paid by insurance funds derived from premiums, and the uncovered remainder came from out-of-pocket payment by the patient to the provider or institution.

The 1973 amendment to the Health Insurance Law made medical care benefits, *Kogaku Ryo-yohi*, for high-cost illness available to nearly 70 percent of the population not previously covered adequately by their health insurance. Workers enrolled in the employer-employee health insurance plans and all persons age 70 and over already had comprehensive health insurance coverage. However, dependents of insured persons and all beneficiaries in the national health insurance plan (Kokuho) were required to pay 30 percent of all medical care charges out of pocket, with no stated maximum liability. When the new benefit was instituted, dependents were still required to pay the 30 percent co-insurance, but a maximum limit of out-of-pocket liability was stipulated by law (30,000 yen within a calendar month).

High-cost illness expenditures usually stem from illnesses that require in-hospital care. For example, if a patient were hospitalized and the total charges

incurred within a calendar month were 150,000 yen (\$526 if U.S. \$1 = 285 yen), the following would occur: (a) the insurance initially would cover 105,000 yen or 70 percent of the charges, (b) the patient would have to pay 45,000 yen out of pocket, and (c) the patient would be reimbursed 15,000 yen after submitting a high-cost illness claim to the insurer because the maximum personal liability is 30,000 yen. Under the new catastrophic illness coverage, the total charges must exceed 100,000 yen (\$350) in a calendar month before reimbursement can be claimed.

It was important to study this new program in Japan for two reasons. First, the early experience of the program could be used for future planning that could benefit Japan's providers, insurers, and consumers. Certain questions could be asked about the initial operational phases of the program. That is, have use patterns, case frequencies, and expenditures for care changed as a result of the institution of this new insurance benefit? If so, in what ways? And should the program be changed in any way or is it satisfactory to all parties? The early research effort may create more questions than answers. But the questions will be answered eventually, and the answers will help to improve the program. If sufficient

Table 1. Health insurance plans,¹ beneficiaries, and study population at risk, Japan

Plan and year established	Beneficiaries	Study population at risk ²	Sampling ratio
Employer-employees' health insurance:			
1. Seikan Kempo, 1926	Employees of firms having 5-1,000 persons	14,412,000	1:20
2. Kumiai Kempo, 1926	Employees of firms having more than 1,000 persons	14,611,000	³ 1:10, 1:15
3. Hiyatoi Kempo, 1953	Day laborers	282,000	1:2
4. Senin Hoken, 1940	Seamen	497,000	1:2
5. Kyosai Kumiai, 1962	National and local government employees; public corporation employees; private school teachers and staff	⁴ 4,193	⁵ All cases
National health insurance:			
6. Kokuho, 1938	Employees of firms having fewer than 5 persons; persons who are self-employed, retired, aged, and others not covered by employees' insurance	43,853,000	³ 1:40, 1:50

¹ All plans were provided for under the Health Insurance Law of 1922 and as amended in recent years.

² Includes the number of dependents in plans 1-4 and all persons in plan 6 eligible for high-cost illness insurance benefit, excludes insured workers.

³ Sampling ratios were changed to lower rates for 2 plans for second and third study years.

⁴ Study population for plan 5 included only 1 segment of a single mutual-aid society; this subgroup represented 0.058 percent of the parent group which has a population of 7,181,000.

⁵ All appropriate cases were included.

and timely information from a series of research projects is made available to planners and administrators for review and consideration, they should be able to make more objective decisions for future programming. Second, the experience in Japan may provide valuable information for the United States or any other nation contemplating the addition of a high-cost illness benefit to its social program (1-3).

Study Purpose

This study was made to examine the first 3 years' experience of *Kogaku Ryoyohi*, the high-cost illness benefit, and to determine:

- whether the addition of a new benefit changed access to care;
- whether different patterns of use occurred among the six major health insurance plans;
- whether expenditure and length of hospital stay changed significantly over a short time;
- the distribution of high-cost illnesses in different insurance plan populations at risk; and
- which illnesses, among 10 selected diagnostic categories, generated high-frequency use, high costs, and longer hospital stays.

The primary objective of the new insurance benefit in Japan was to lighten the financial burden of persons with high-cost illnesses. However, it is difficult to know in advance how much dormant, unmet need exists in a population. Under the new benefit, it was possible that numerous persons previously unknown to have high-cost illnesses would seek hospital care. Only educated guesses, based on bits of historical information, could be made as to the percentage of this population. Therefore, we attempted to obtain answers to at least some of the questions from the early experience of the new program.

Study Methods

The first step of the study was to locate agencies that had information about the populations at risk and use patterns of beneficiaries in each of the insurance plans. Next, visits were made to these agencies to determine the availability and accessibility of, as well as the feasibility of collecting, hospital case information, specifically by diagnosis, insurance plan, expenditure, length of stay, and year of service.

Information and assistance for the conduct of this study was provided by the following sources:

All Japan Federation of National Health Insurance Organization (Kokuho Chuokai)

National Federation of Health Insurance Societies (Kemporan)

Ministry of Health and Welfare (Koseisho): Bureau of Information and Statistics; Bureau of Health Insurance; and Bureau of Medical Affairs

The Institute of Public Health (Kokuritsu Koshu Eisei In): Department of Public Health Practice; Department of Public Health Demography; and Department of Public Health Statistics

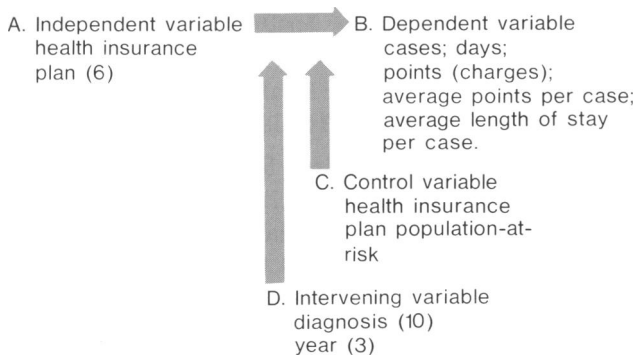
The information acquired for the study consisted of summary frequency distributions only; neither age-specific nor sex-specific data were readily available in the appropriate cross tabulations from all 6 plans (table 1) by 10 selected diagnostic categories (table 2). The time and cost required to gain this additional information was beyond the scope of this

Table 2. Diagnostic categories selected for study of high-cost illness insurance, by subcategory and index No.¹

<i>Diagnostic category and subcategory</i>	<i>Index No.</i>
Tuberculosis:	
Respiratory tuberculosis	4
Other tuberculosis	5
Cancer:	
Malignant neoplasm of the stomach	21
Malignant neoplasm of the mammary glands	22, 23
Other malignant neoplasms	24
Mental illness:	
Psychosis, mental deficiency, neurosis, abnormal personality, other mental disease	32-34
Nervous system disease:	
Diseases of the nervous system	40
Hypertension:	
Hypertensive disease	43
Heart disease:	
Active rheumatic fever and chronic rheumatic heart disease	41, 42
Ischemic heart disease	44
Cerebrovascular disease:	
Cerebrovascular disease	45
Bronchitis:	
Bronchitis and pulmonary emphysema	52
Gastric and duodenal ulcer:	
Ulcer of the digestive system	58
Other gastric and colon disease	59
Accidents; poisoning; other:	
Trauma and fracture	84
Intracranial and organic injuries	85
Heat injury	86
Injuries by chemical substances	87
Other injuries or trauma	88

¹ From Eighth Revision, International Classification of Diseases, Adapted for Use in Japan, 1963.

project. The information collected is characterized by the following variable sets:



Analysis

Initially, cross tabulations of cases, total charges, and total days were reviewed by insurance plan, diagnosis, and year of service for high-cost cases. In addition, crude (unadjusted) rates of average charges per case and average length of hospital stay were tabulated.

Differences in the means within and between plans were tested by analysis of variance methods for the following variable sets: (a) average charge per high-

cost case by diagnosis for each study year separately (between insurance plan comparisons), (b) average length of hospital stay per high-cost case by diagnosis for each study year separately (between insurance plan comparisons), (c) average charge per high-cost case by diagnosis during 3 years (within insurance plan comparisons), and (d) average length of hospital stay per high-cost case by diagnosis during 3 years (within insurance plan comparisons).

Projected monthly and annual incidences of high-cost illness cases, by insurance plan and for the total population at risk, were estimated from a 1-month sample of cases from each of five plans. For the sixth plan, Kyosai Kumiai, the estimates were made by use of information from the Kumiai Kempo experience. Case frequencies and information available about the population at risk were considered in calculating the projected incidence. The monthly projections were far more reliable and valid than the annualized rates because they were derived from insurance agency samples for a single month. Annualizing these rates has its hazards; however, they were calculated to obtain at least a crude estimate of the annual incidence of high-cost illness in Japan. More-refined methods should be developed by other researchers in Japan to improve the estimates for future planning.

The following real and potential statistical biases should be kept in mind in evaluating the findings of this study:

- Some insurance plans instituted the high-cost illness benefit from the beginning, while others phased this benefit in during 2 years. Information was collected about all cases of high-cost illness as previously defined, regardless of whether or not a particular plan offered the benefit, based on the criterion of expenditure (cases that had total monthly charges of more than 100,000 yen). The case frequencies may have been higher by insurance plan if all the beneficiaries had been entitled to the new benefit from the beginning of its availability.
- In this study, Kyosai Kumiai cases were represented by only one small group (0.058 percent) of public employees, who may not have been representative of their parent population at risk or may not have reflected the illness experience of Kyosai Kumiai as a whole. The data for this subgroup represent the total experience for each study year, not a sample as for the other five plans.
- The samples for the five plans were drawn during different months, four in April and May and one in September, of each year; the climate during these months is similar. Although the different sampling



months introduce potential seasonal variation, most of the diagnostic categories in the study represent chronic diseases rather than acute infectious ones that tend to be affected by season.

- Kumiai Kempo drew its sample in September, but in August 1976 the maximum liability had been raised from 30,000 to 39,000 yen (Ordinance 201 approved by the Diet, Tokyo, August 1, 1975). The sample was drawn as if the rate were still 30,000 yen, the cutoff for inclusion as high-cost cases. It is possible, but not likely, that persons who could afford 30,000 but not 39,000 yen might have deferred hospital care because of the additional 9,000 out-of-pocket yen now required. But it is more probable that Kumiai Kempo beneficiaries were not yet aware of the change in charges at that early time. Thus, they were expected to have sought hospital care as if the upper limit of out-of-pocket expenditures was still 30,000 yen.

- The data available from Kumiai Kempo for this study for 1976 were based on 91 percent of the edited and checked sample cases. The remaining 9 percent of the cases were being checked during the data collection period and were not included in the tabulations presented here. There is little reason to believe that inclusion of this 9 percent would have changed the findings significantly because the available data were consistent with the information collected about the beneficiaries of this plan for 1974 and 1975.

- The sampling rates differed between insurance plans and changed in two plans during the study period: Kumiai Kempo went from a 1:10 to a 1:15 sampling rate, and Kokuho changed its sampling rate from 1:40 to 1:50. There is always the potential of sampling error; however, the sampling frames and subsequent sample sizes appear to be of sufficient magnitude that the occurrence of sampling error was considered negligible.

- All case information was taken from a special study of selected single calendar months; therefore, the average length of stay could not exceed 31 days.

These potential biases were not expected to have a significant effect on the reported findings.

Findings

The high-cost illness insurance benefit was designed for dependents of insured persons covered by the five employer-employee insurance plans and all persons covered under Kokuho. The eligibility criteria for beneficiaries by insurance plan and the study population at risk are shown in table 1. The enrollee population in Hiyatoi Kempo and Kokuho plans had

fewer children in the 0-14 age group and more elderly persons in the 70 and over group than in the other four insurance plans. These are two examples of differences by age groups between insurance plan populations at risk. The age distributions of the other four plans were similar. Unfortunately, age-specific information was not available on the case material used in this study. Therefore, all of the material presented consists of unadjusted frequency distributions and rates.

The frequency distributions of high-cost cases (more than 10,000 points or more than 100,000 yen; 1 point equals 10 yen) for each of the 6 health insurance plans, by year, were as follows:

<i>Plan</i>	<i>1974</i>	<i>1975</i>	<i>1976</i>
Seikan Kempo	1,042	2,029	2,417
Kumiai Kempo	1,645	2,108	2,213
Hiyatoi Kempo	401	749	763
Senin Hoken	381	788	897
Kyosai Kumiai	151	178	237
Kokuho	2,477	3,478	3,948
Total	6,097	9,330	10,475

Case frequencies increased annually for each of the six plans. As expected, the largest plan, Kokuho, had the most cases. Kyosai Kumiai had the fewest cases because information was available from only one mutual-aid society. The distributions were similar to the proportions they represented of the totals at risk.

A pattern by diagnostic categories for beneficiaries was seen in certain health insurance plans. Hiyatoi Kempo had higher proportions of patients with psychiatric illness, cerebrovascular disease, and heart disease; Senin Hoken, tuberculosis and nervous system disease; a Kyosai Kumiai subgroup, bronchitis and the accident-poisoning-trauma category; and Kokuho, gastric and duodenal ulcer. These were 2- and 3-year trends that require further investigation. The diagnoses for beneficiaries of Seikan Kempo and Kumiai Kempo did not show a noticeable pattern.

Psychiatric illness, cancer, and cerebrovascular disease accounted for approximately 50 percent of the high-cost illnesses. The remaining seven illnesses made up the other half of the cases. The increase in high-cost psychiatric illness demonstrated the most profound change between the first and second year of the program (1974, 12.9 percent and 1975, 25.9 percent of the high-cost cases). Psychiatric illness maintained its same position in 1976, accounting for 26 percent of the cases. No other diagnostic category showed this degree of change. The proportions of high-cost illness cases by diagnostic category and insurance plan varied somewhat, but the observed variation by year within each plan and across plans

can not be explained fully on the basis of available information.

Without exception, average charge (points) per high-cost illness case increased by year for all six plans, as shown in the following table:

Plan	Points ¹		
	1974	1975	1976
Seikan Kempo	15,772.7	16,552.4	18,749.5
Kumiai Kempo	15,648.6	16,391.1	19,154.4
Hiyatoi Kempo	14,464.8	15,308.2	16,981.4
Senin Hoken	15,563.8	15,785.0	18,604.4
Kyosai Kumiai	17,343.4	22,127.5	21,514.6
Kokuho	15,669.2	16,753.4	19,260.7
Overall average. ..	15,637.0	16,532.6	18,949.3

¹ 1 point = 10 yen.

Cancer patients consistently had the highest average charge per case (1974, 21,997.9 points; 1975, 25,725.6 points; and 1976, 30,060.3 points), followed by patients with gastric and duodenal ulcer and cerebrovascular disease. Patients with psychiatric illness had the lowest average charge per case (1974, 11,453.4 points; 1975, 12,476.0 points; and 1976, 13,980.3 points). These diagnostic categories demonstrate the extremes from the grand means (1974, 15,637.0 points; 1975, 16,532.6 points; and 1976, 18,949.3 points). The other diagnoses were spread within these extremes. The diagnostic-specific average charges are not presented in tabular form here; they are available from Broida.

The average length of hospital stay is shown in table 3 by diagnostic category. Patients with psychiatric illness had the longest average stay (1974, 30.2 days; 1975, 30.1 days; and 1976, 30.0 days), while cancer patients had the shortest stays (1974, 25.7 days; 1975, 24.8 days; and 1976, 23.2 days). These same trends were also found across insurance plans by diagnosis. The details documenting these overall cross trends are available, but not presented here. When the data from the preceding text table and table 3 are combined, certain factors emerge. Cancer patients had the highest average charge and at the same time the shortest hospital stays, whereas the opposite was true for persons with psychiatric illness. It must be assumed that cancer patients required the use of specialized personnel and high levels of surgery, medication, and other expensive management over a relatively short time. In contrast, psychiatric patients required lengthy stays and less intensive services. The patients in the other eight diagnostic categories required different combinations of these two factors.

Estimates of the incidence of high-cost (catastrophic) illness in the population are shown in table

Table 3. Average length of hospital stay (days) for high-cost cases, by diagnostic category and year

Diagnostic category	1974	1975	1976
Tuberculosis	29.7	29.5	29.4
Cancer	25.7	24.8	23.2
Psychiatric illness	30.2	30.1	30.0
Nervous system disease ...	29.8	29.1	29.0
Hypertension	28.5	28.3	28.6
Heart disease	28.4	27.9	27.3
Cerebrovascular disease ...	28.5	28.1	27.8
Bronchitis	27.7	27.4	26.1
Gastric and duodenal ulcer..	26.2	25.9	25.2
Accidents, poisoning, other trauma	26.1	26.1	25.0
Overall average	28.0	28.1	27.6

4. Annualized rates were projected from single-month data derived from each insurance plan. Overall rates were calculated from a summary of the information from all plans. The estimated incidence for Japan (99.4 percent of the population is insured) was as follows: 1974, 2.17 percent; 1975, 3.39 percent; and 1976, 4.44 percent.

Finally, average monthly and annualized charges per case by study year were estimated in yen and converted to dollar equivalents based on the Japanese experience. If the dollar equivalent is based on the current exchange rate (October 25, 1977, U.S. \$1 = 252 yen), the average annual charge per case from the 1976 experience would be equal to \$8,594.90. It is interesting that these figures are similar to those projected by some researchers in the United States (2, 3). We recognize that both the estimated annualized incidence and charges per case are crude. However, they are provided as points of reference for future

Table 4. National estimates of the incidence (annualized) of high-cost illness cases in Japan, by health insurance plan and year,¹ in percentages

Insurance plan	1974	1975	1976
Seikan Kempo	1.74	3.38	4.02
Kumiai Kempo	1.35	2.60	2.73
Hiyatoi Kempo	3.41	6.34	6.49
Senin Hoken	1.84	3.81	4.33
Kyosai Kumiai	1.37	2.64	2.77
Kokuho	2.71	4.76	5.40
Overall average	2.17	3.39	4.44

¹ Population at risk as of March 1975, from "Health Insurance and Health Insurance Societies in Japan 1976," National Federation of Health Insurance Societies (Kemporan), Tokyo, 1976.

research. In the next section we describe some implications and limitations of the findings from this study for public policy in the United States.

Comments

The findings of this study indicate that high-cost illness increased markedly in frequency and expenditure per case, regardless of diagnostic category, during the first 3 years of Japan's new insurance program. These increases probably can be attributed to a series of interacting factors:

- increased access to care because of the availability of the new insurance benefit,
- unmet need transformed into effective demand,
- physician and patient knowledge of maximum patient financial liability,
- increases in the intensity of services because of the availability of new and improved technology,
- two increases in the rates of reimbursement for physician care during the study period, and
- general inflation of medical care costs.

At the same time, there was little change in the average length of hospital stay per high-cost case. For persons with low-cost illness, however, there was a marked reduction in the number of cases, average charge per case, and average length of stay. The low-cost case frequency decreased by more than 50 percent during the 3 years, average charges were reduced 20 percent, and length of stay declined from 17.9 to 8.1 days (detailed data available from Broida).

It appears that a shift from low-cost to high-cost illnesses occurred at the cut point; that is, illnesses formerly classified as low cost subsequently incurred expenditures that were high enough to be classified as high cost. Some evidence to support this hypothesis was observed from documented information provided by Kemporan about the beneficiaries of Kumiai Kempo. The implication is that when a benefit was offered, patients and the medical care system (providers and institutions, for example) took advantage of the benefit. This is not to say that there was wrongdoing by any of the parties, but rather it indicates that when people become aware of a benefit their need turns into an effective demand. In addition, new technology and the introduction of expensive drugs also tended to increase costs and expenditures for medical care and thereby converted low-cost to high-cost illness.

In Japan, particularly since the offering of the new benefit, there was no incentive for the provider or the patient to reduce the intensity of services or the length of hospital stays. The reason for the lack

of incentive was that, in the short run, neither party was at risk for the increased expenditures above the maximum liability level. However, the Government has been called upon to provide increasing subsidies to some health insurance plans, and this is causing concern for the future of the program. The only way to make up this deficit was to raise the insurance premiums or raise the maximum liability level, or a combination of both. At present, the combination of increasing both the premium and the maximum liability is being tried. This approach may not completely solve the problem, and it might reduce access to care for those persons in greatest financial need.

In the future, stronger forms of cost containment will be instituted in an attempt to control inflation and some of the other factors that affect the costs of the medical care. At the same time, it will also be necessary to assure adequate levels of access and quality of care, a balance that is difficult to sustain. Many of the same factors that had an impact on the increases in costs, and subsequently expenditures for care incurred by patients in this high-cost illness program in Japan, are currently being discussed as potential problems that could occur in the United States should "catastrophic illness insurance" become available to the U.S. population at large.

Reflections

What lessons can we learn from this experience in Japan? First, Japan has had a comprehensive, compulsory sickness insurance program in place for many years. Its history and development were complex, but it has been able to meet a societal need—"assure all of our people health and welfare" (4). The insurance was first developed for the working population in 1922 and later included dependents, but with lesser coverage than was offered to workers.

To reduce this inequity between insured persons and dependents, the out-of-pocket payment for dependents was reduced from 50 to 30 percent. Recently, dependents' coverage was expanded to include a high-cost illness insurance benefit with a monthly maximum liability level; that is, the 30 percent deductible remained in effect. However, when the cumulative deductible reaches a specified maximum, 100 percent of the additional expenditures are covered. The maximum liability level has been increased once since the institution of the benefit in 1973 and probably will be raised again soon (Legislative Proposal, Diet Session, Tokyo, spring 1977). The major reasons for these program changes are (a) more illnesses have been classified as high

cost and (b) the cost per case has exceeded the projected estimates for meeting the needs of a particular segment of the population.

The real situation was almost like that postulated by Roemer's law (5). Physicians, hospital beds, and funds for the payment of services were readily available; therefore, they were used. In this situation, the patients and providers expanded the utilization rates, costs, and expenditures to meet the criteria of the benefit. Without appropriate controls in the form of cost containment and without a built-in incentive system for both providers and consumers of care, the program will undoubtedly continue to be open ended. That is, rising utilization, costs, and financial deficits will become the rule rather than the exception.

It is difficult to anticipate the impact and effects of a new program. The task of changing an operating program is usually more difficult than the initial task of establishing it. Nevertheless, in a crisis situation all parties, regardless of their affiliations, are forced to come to terms with the problems and to make decisions for change. In most cases, they must make compromises and give up some rewards for the good of the majority. After all, the primary purpose of this particular program was to benefit a segment of the population inflicted with serious, expensive, and in many cases, terminal illness.

The Ministry of Health and Welfare of Japan, the Japanese Medical Association, and leaders in the health insurance field have developed this program as a joint venture. We are confident that they will continue to improve the program by reviewing their initial experiences and by instituting appropriate revisions. Planners and policy makers in the United States and other nations can learn from the positive, as well as the negative, experiences of this special program that has been available to a significant segment of the population in Japan since the fall of 1973.

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SYNOPSIS

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In October 1973, Japan's basic Health Insurance Law of 1922 was amended to provide catastrophic illness coverage for dependents of insured workers enrolled in the employer-employee insurance plans and for all persons under the so-called national health insurance plan. Before this time, dependents were required to pay 30 percent of physician, hospital, and related charges out of pocket. Now, although they are still required to pay 30 percent out of pocket, they have a maximum liability level of 30,000 yen

(\$120) during any calendar month. Health insurance covers 100 percent of the excess charges above the personal liability level.

From 1974 to 1976, the first 3 years of the high-cost (catastrophic) illness benefit, an increase of more than 70 percent occurred in the frequency of high-cost cases. This general trend was observed for all of the six major health insurance plans studied. The average expenditure per case increased 5.7 percent from 1974 to 1975 and 14.6 percent from 1975 to 1976, regardless of plan. However, there were marked differences by diagnosis. Although inflation explains part of these increases, the intensity of services certainly played a part. The average length of hospital stay for high-cost cases remained relatively stable, with an overall minimal decrease of 0.6 day—

1974, 28.0 days; 1975, 28.1 days; and 1976, 27.6 days. Cancer patients had the highest average charge and the shortest hospital stays, whereas patients with psychiatric illness had the lowest average charge and the longest hospital stays. The authors recommend that micro studies be carried out that include other variables—such as age, sex, severity of illness, education, income, and occupation—for a better understanding of the unexplained variations.

National estimates of the incidence of high-cost illness cases were 2.17 percent in 1974, 3.39 percent in 1975, and 4.44 percent in 1976.

These preliminary findings should be of interest to health planners and administrators in Japan, as well as to those in the United States because of the pending proposals for catastrophic illness insurance.